

KOPANEVICH, P.P.

"Dancing" and swarming of honeybees. Priroda 52 no.8:102-103
Ag '62.
(MIRA 16:9)

1. Moskovskaya veterinarnaya akademiya.
(Bees)

KOPANEVICH, P.P.

Antibiotics and bees. Priroda 53 no. 11:67-70 '64. (MIRA 18:1)

1. Moskovskaya veterinarnaya akademiya.

KOPANOVICH, YE. G.

23282 Dopusi Na Izgotovleniye Detaley Iz Plastmass I Pressformy Dlya Ikh
Pressovaniya. Trudy Mosk. Aviats. Tekhnol. In-ta, Vyp. 6, 1949,
c. 49-66.

SO: LETOPIS' NO. 31, 1949

KOPANEVICH, E. G.

Osnovy konstruirovaniia plastmassovykh detalei i pressform. Moskva,
Mashgiz, 1950. 164 p.

(Fundamentals of designing plastic machine parts and pressmolds.)

SO: Manufacturing and Mechanical Engineering in the Soviet Union,
Library of Congress, 1953.

KOPANEVICH, E. G.

Konstrukce soucasti z plastickych latex a lisovacich forem. (Vyd. 1.)
Praha, Prumyslove vydavatelstvi, 1952. 152 p. (Kniznice kovorunmyslu,
sv. 110). (Manufacture of parts made of plastic materials and press
molds. Tr. from the Russian. 1st ed. illus., bibl., footnotes, tables)

SO: Monthly List of East European Accessions (EEAL), LC, Vol. 5, no. 12
December 1956

KOPANEVICH, YE. G.

Dies (Metalworking)

Dies with hydro-plastic components. Stan. i instr. 23 no. 3:28-29 Mr '52

Monthly List of Russian Accessions, Library of Congress, July 1952. UNCLASSIFIED.

"APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R000824510002-9

KOPANEVICH, Ye. G.

Machine Tools

Hydroplastic clamps in universal devices, Stan. i instr., 22, No. 4, 1952

Monthly List of Russian Accessions, Library of Congress, November 1952. UNCLASSIFIED.

APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R000824510002-9"

KOPANEVICH, YE. G., Eng.

Founding

Method of calculating the outer (shafts) and inner (bore) gage of parts cast in metallic molds. Vest. mash., 32, No. 2, 1952.

Monthly List of Russian Accessions, Library of Congress, October 1952. UNCLASSIFIED.

"APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R000824510002-9

KOPANEVICH, Ya.G.

[Multiple clamps with hydraulic links in instrument construction]
Mnogokratnye sashimy s gidravlicheskimi sven'iiami v priborostrroenii.
Moskva, Gos. izd-vo obor. promyshl., 1953. 53 p. (MLIA 6:12)
(Hydraulic machinery) (Machine tools)

APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R000824510002-9

1. KOPANEVICH, E. G.
2. USSR (600)
4. Machine-Shop Practice
7. Setting up of work in machine-tool fixtures by a flat surface and two openings.
Stan. i instr. 24, No. 2, 1953.

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000824510002-9"

"APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R000824510002-9

Tolerances for metric thread elements formed in plastic. Vest.mash. 33
no.3:73-78, 80-82 Mr '53. (MLRA 6:5)
(Screw threads, Standards)

APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R000824510002-9"

KOPANEVICH, Ye.G.; OSHAS, Ya.V., inzhener, retsenzent; BELYAYEV, V.N.,
inzhener, retsenzent; KORNYUSHIN, P.M., inzhener, redaktor;
TIKHONOV, A.Ya., tekhnicheskiy redaktor.

[Designing machine-tool attachments in the instrument industry]
Proektirovanie stanochnykh prisposoblenii v priborostroenii. Mo-
skva, Gos. nauchno-tekhn. issd-vo mashinostroit. lit-ry, 1954.
231 p. (MLRA 8:2)
(Machine tools)

"APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R000824510002-9

KOPANEVICH, Ye.G., inzhener.

Wall thickness precision in making hollow parts by die casting.
Lit.preizv.no.7:26-30 Jl '56. (MLRA 9:9)
(Die casting)

APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R000824510002-9"

KOPANEVICH, Ye. G. (Cand. Tech. Sci.)

"Automation of Drilling Operations in Instrument Manufacture." in book Some Problems in the Modern Technology of Instrument Making, Moscow. Oborongiz, ~~1956~~. 1957
126 p. Moscow. Aviationnyy tekhnologicheskiy institut.

In this article the author discusses automation of drilling operations and suggests the following two ways in which it may be accomplished: 1) building a universal drilling machine with quick resetting for new drilling specifications and 2) developing and introducing special devices for performing automatic drilling operations on ordinary drilling machines. The two methods suggested are discussed in detail. The article contains schematic diagrams of automatic drilling machines. No references are given.

"APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R000824510002-9

KOPANEVICH, Ye.G., kandidat tekhnicheskikh nauk.

Introducing automatic control of drilling operations in instrument
manufacturing plants. Trudy MATI no.33:97-100 '57. (MIRA 10:10)
(Drilling and boring machinery) (Automatic control)

APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R000824510002-9"

25(1)

PHASE I BOOK EXPLOITATION SOV/2690

Kopanovich, Yevgeniy Grigor'yevich, Candidate of Technical Sciences

Tochnost' detaley, izgotovlyayemykh v metallicheskikh formakh
(Precision of Parts Made in Metal Molds) Moscow, Mashgiz, 1958.
201 p. 3,000 copies printed.

Reviewer: Z. F. Urazayev, Engineer; Ed.: Yu. A. Vorob'yev, Engineer;
Tech. Ed.: V. D. El'kind; Managing Ed. for Literature on
Machinery and Instrument Construction: N. V. Pokrovskiy, Engineer.

PURPOSE: This book is intended for designers, technologists, foremen,
and production workers in the instrument-and machinery-construction
industries. It may also be used by students of correspondence yuzes
and tekhnikums.

COVERAGE: The author analyzes errors causing spread of dimensions
in parts manufactured by die casting, investment casting, die
forging, and powder metallurgy methods, as well as spread in parts
made in plastic molds. Classifications of dimensions according to
factors causing spread are presented along with corresponding formulas,
graphs, and tables for calculating tolerances for castings.

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Precision of Parts (Cont.)

SOV/2690

Also discussed are ways of improving casting precision and examples for determining tolerances and dimensions for molding. No personalities are mentioned. There are 22 references, all Soviet.

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Precision of Parts (Cont.)

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Card 7/8	

MALOV, Aleksey Nikolayevich; KOPANEVICH, Ye.G., kand.tekhn.nauk, retsenzent;
SHMKHTER, V.Ya., kand.tekhn.nauk, red.; BELYAYEVA, L.A., izdatel'skiy
red.; ROZHIN, V.P., tekhn.red.

[Technology of cold pressing and forging] Tekhnologiya kholodnoi
shtampovki. Izd. 2-e, perer. Moskva, Gos. izd-vo obor. promyshl.,
1958. 374 p.
(Sheet-metal work) (Forging)

KoPANEVICH, Ye.L.

AUTHORS: None given
TITLE: A Conference on the Accuracy of Machine Castings
PERIODICAL: Izvestiya Akademii Nauk SSSR, Otdeleniye Tekhnicheskikh Nauk, Metallicheskii i topivnoy, 1959, Nr. 4, pp. 255-256 (USSR)

ABSTRACT: A conference on the above subject took place in the Institute of Machine Building of the Academy of Sciences of the USSR on 22-25 April 1959. About 200 representatives of scientific-research institutes, laboratories, universities and largest works from 34 towns participated in the conference. The following papers were read:
 D.B.Golikayev, "The present state of studies of the accuracy of castings"; B.N.Aleksyuk, "Results of investigations of the dependence of the accuracy of casting on technological factors"; M.Pilov, "Methods of analytical evaluation of dimensions of castings"; N.I.Archutin, "Theoretical and experimental investigations of the accuracy of casting"; I.P.Yeremenko, "The system of allowances for mechanical working of castings"; N.G.Korovnichuk, "Methods for the determination of tolerances for dimensions of cast parts"; S.A.Karenkov, "Tolerances for non-ferrous castings produced by various methods of casting"; G.M.Sukhikh, "Methods of controlling the cleanliness of the surface of castings"; I.S.Kononchuk, "The influence of stresses formed during casting on the accuracy of castings"; L.V.Korovay, "The process of jacking should be taken into account in the accuracy of castings"; S.S.Sokolov, "Accuracy and reliability of castings"; Ya.Ostapchenko, "Some problems in the dimensions of castings caused by a lack of control of separation of the pattern-molded boxes of castings"; N.G.Dobrovolskiy, "Physical deformations of castings"; N.S.Trofimov, "Some new conditions of making accurate castings in sand boxes"; N.E.Lyubomirskiy, "The influence of the chemical composition of iron on the accuracy of dimensions of castings"; S.N.Pechurin, "The influence of the physical properties of the metal on the accuracy of castings"; T.N.Golikayev, "The effect of the temperature of casting on the accuracy of castings"; T.N.Golikayev, "The effect of the temperature of casting on the quality of castings"; V.Zhuravlev, "Improvement of the cleanliness and accuracy of large castings"; N.I.Zhuravlev, "On the accuracy of castings in sand boxes"; I.I.Zhuravlev, "On the accuracy of castings in sand boxes"; lost was method"; B.I.Gorbunov, "An investigation of the accuracy and surface characteristics of castings made under pressure and by the lost wax method"; M.V.Mel'nikov and B.B.Golikayev, "The formation of new control of castings during casting under pressure"; K.Korovay, "A.A.Sukhikh and N.G.Dobrovolskiy, "An improvement in the surface quality of castings made under pressure by forming a vacuum in the pressure molds". It was established that studies on the subject of the accuracy of castings are developing two planes mainly due to lack of coordination in the research work and activities of members of institutions in the field of mathematics, physics and electronics. In order to develop methods for overall calculations of the accuracy, productivity and economy of casting processes the conference recommended organization of casting bureaus and key (at scientific research institutes and universities) metal casting consultation of foundry specialists, metallurgists, physicists and economists.

1(1)

MASK I BOOK EXPLOITATION

807/5304

Sovetskaniye po teorii litinykh protsessov. 5th, 1959.

Technost' otdel'nyi trudy sovetskaniya (Accuracy of Castings) Translations of the First Conference on the Theory of Foundry Processes
Moscow, March 1950. 3,500 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Institut mashinovedeniya.

Kollektsiya po tekhnologii mashinostroyeniya.

Ed. (Title page): B. B. Gulyayev, Doctor of Technical Sciences, Professor; Ed. of Publishing House: O. M. Boboleva; Tech. Ed.: A. F. Uravova; Managing Ed. for Literature on Hot-Processed Metals: S. Z. Gol'din, Engineer.

PURPOSE: This book is intended for scientific and technical personnel at scientific research institutes, factories, and schools of higher education.

COVERAGE: The book contains 19 reports read at a conference on the accuracy of castings. The conference was organized by the Committee on Processing in Machine Building and sponsored by the Institute of Nonferrous Alloys USSR (Institute of the Science of Machines of the Academy of Sciences USSR). The reports, presented by leading specialists, science workers, and production personnel, discuss the present state of the problem of the accuracy of castings and methods of solving the problems involved. There are 58 references, mostly Soviet.

Mironov, I. P. [Candidate of Technical Sciences]. System of allowances for the machining of castings. 54

Korotchenko, V. A. [Candidate of Technical Sciences]. Dimensional tolerances of cast parts. 62

Karemov, S. A. [Candidate of Technical Sciences]. Tolerances of nonferrous-alloy castings made by various methods. 67

Ivanov, M. P. [Engineer]. Investigating the effect of variation in the chemical composition of cast iron on shrinkage and dimensional accuracy of castings. The work was carried out under the general supervision of P. P. Bely.

Nikolskiy, O. M. [Engineer]. Classification, conventional surfaces, and methods of determining the roughness of cast surfaces. 87

Tokaryev, V. O. [Candidate of Technical Sciences]. Conditions for increasing the accuracy of castings obtained in sand molds. 99
The experimental part of the work was carried out under the supervision and direct participation of Engineer Z. I. Budantseva.

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"APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R000824510002-9

KOPANEVICH, Ye.G., kand.tekhn.nauk, dots.

Determining the economic efficiency of using specializer equipment.
Trudy MATI no.47:5-16 '60.
(MIRA 14:2)
(Factory management)

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"APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R000824510002-9

KOPANEVICH, Ye.G., kand.tekhn.nauk, dotsent

Accuracy of dimensions determining axes of holes drilled in jigs.
Trudy MATI no.52:5-19 '61. (MIRA 15:4)
(Drilling and boring)

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CIA-RDP86-00513R000824510002-9"

BELEVITSEV, A.T., kand. tekhn. nauk; GOLIKOV, V.I., kand. tekhn. nauk;
GOTSERIDZE, R.M., inzh.; YEFIMOV, V.P., kand.tekhn. nauk
[deceased]; KOPANEVICH, Ye.G., kand. tekhn. nauk; MALOV, A.N.,
prof.; PARFENOV, O.D., kand. tekhn. nauk; ROZENBERG, A.G.,
tekhn.; SEMIBRATOV, M.N., kand. tekhn. nauk; SKURATOV, A.Ye.,
kand. tekhn. nauk; SOKOLOVSKIY, I.A., kand. tekhn.nauk;
SYROVATCHENKO, P.V., kand. tekhn.nauk; TISHCHENKO, O.F., doktor
tekhn. nauk; USHAKOV, N.N., kand. tekhn. nauk; CHUMAKOV, V.P.,
kand. tekhn. nauk; SHAL'NOV, V.A., kand. tekhn.nauk; SHISHKIN,
V.A., kand. tekhn.nauk; YUZHNYY, I.I., inzh.; BLAGOSKLONOVA,
N.Yu., red. izd-va; SOKOLOVA, T.F., tekhn. red.

[Manual for engineers in the instrument industry] Spravochnik
tekhnologa-priborostroitelja. Pod red. A.N. Malova. Moskva,
Mashgiz, 1962. 988 p. (MIRA 16:2)

(Instrument manufacture)

VOROB'YEV, Yu.A., kand. tekhn. nauk; KOPANEVICH, Ye.G., kand. tekhn. nauk, red.; SIROTIN, A.I., inzh., red. IZD-VU, GORDEYEVA, L.P., tekhn. red.

[Accuracy of parts obtained from nonferrous alloys and plastics by casting and pressing] Tochmost' detalei, poluchennykh lit'iem i pressovaniem iz tsvetnykh splavov i plastmass. Moskva, Mashgiz, 1963. 173 p. (MIRA 16:6) (Metalwork) (Plastics--Molding)

KOPANEVICH, Ye.G., kand. tekhn. nauk; VOROB'YEV, Yu.A., kand.
tekhn. nauk, red.; SIROTIN, A.I., red. izd-va; EL'KIND,
V.D., tekhn. red.

[Precision in preparing billets] Tochnost' izgotovleniya za-
gotovok. Moskva, Mashgiz, 1963. 363 p. (MIRA 16:7)
(Metalwork)

KOPANICA, M.

✓ Polarographic determination of vanadium. R. Fibis and
M. Kopanica (Karlov Univ., Prague). *Sbornik Fakultetu
Technickej Chemickej a Anal. Chemie Praha* 1957, 14, 3.
Publ. 1958 - Ethylenediaminetetraacetic acid

Heavy metals complexed with I⁻ in aqueous solution

reduction proceeds in 2 distinct steps V(V) → V(IV) + V(IV)
 $E^\circ = -1.25$ and -1.55 v. Ag/AgCl. The reduction of V(VI)

Pb-borate-II complexes. The use of polyvinyl chloride
with one and III boronates

KOPANICA, MILOSLAV

8

2

0

Rapid analytical methods for metals and minerals. I.
Oxidimetric determination of cobalt in solutions of glycine.

Miloslav Kopanica and Jan Dolezel (Czechoslovakia)

Co can be determined by direct potentiometric titration with $K_3[Fe(CN)_6]$ in the presence of glycine at pH 9.5-12. The reaction is very rapid and stable under excess of air. Even metal ions such as Mn^{2+} , Cr^{2+} , W^{2+} , V^{2+} , Cu^{2+} , Zn^{2+} , Al^{3+} , Pb^{2+} , Ba^{2+} , and NH_4^+ do not interfere, neither do Cl^- , NO_3^- , SO_4^{2-} , and F^- . Interfering influence of Mn²⁺ and Fe is removed by selective oxidation of Mn with H_2O_2 in the medium and by excess of alkali. The glycine buffer which prevents precipitation of $Co(OH)_2$ and formation of complex-forming compounds $Bi_3(CN)_6$ is especially important. The method must be carried out in an inert atm. The method was successfully applied in the analysis of Ni salts, Co salts, and minerals.

KOPANICA, M.; DOLEZAL, J.

"A rapid analytic method for determining metals and inorganic raw materials.
I. Oxidimetric determination of cobalt in a glycine medium. In German."

p. 195 (COLLECTION OF CZECHOSLOVAK CHEMICAL COMMUNICATIONS. SBORNIK
CHECKHOSLOVATSKIKH KHMICHESKIKH RABOT. --Praha, Czechoslovakia.)
Vol. 22, No. 1, Feb. 1957

SO: Monthly Index of East European Accession (EEAI) LC, Vol. 7, No. 5, May 1958

KOPANICA, Miloslav [REDACTED]

E-2

CZECHOSLOVAKIA / Analytical Chemistry. Analysis of
Inorganic Substances.

Obs Jour : Rof Zhur - Khim., No 10, 1958, No 32166

Author : IV: Miloslav Kopanica, Jan Dolezal; V: Jan Dolezal.

Inst : -
Title : Application of Amino Compounds to Polarography of Inorganic
Substances. IV. Polarographic Behavior of Zinc, Cobalt and
Nickel in Glycine Solutions. V. Simultaneous Determination
of Thallium, Copper, Lead and Cadmium in Indium.

Orig Pub : Chem. listy, 1957, 51, No 6, 1052-1057; 1058-1060; Col-
lect. czechosl. chem. commun., 1958, 23, No 1, 50-56; No 2,
253-256.

IV. Zn^{2+} in the medium of the Britton-Robinson buffer
solution of pH = 7.3 is reduced at -0.04 v. This wave is
suppressed, if glycine was added, and a new wave appears si-
multaneously, which is shifted about 200 mv to the side of

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CZECHOSLOVAKIA / Analytical Chemistry. Analysis of
Inorganic Substances.

E-2

Abs Jour : Rof Zhur - Khim., No 10, 1958, No 32166

nogative values. The sum of heights of both those waves remains constant. A similar decrease of height of the 1st wave is observed also at the rise of pH, if the constant of analytic concentration was preserved. The authors suppose that the 1st wave corresponds to the reduction of the simple Zn^{2+} ion plus the reduction of a MG^+ ion (in which M is a metal and G is the glycine group). If the glycine concentration was sufficient, the height of the 1st wave is determined by the rate of the reaction $MG_2 + H^+ \rightarrow MG^+ + HG$; the rate constant of this reaction $\log C_1 = 5.0$. The 2nd wave corresponds to the reduction of MG_2^+ . All that has been said in reference to Zn is valid also in reference to Co; in this case $\log C_1 = 7.4$. In the case of Ni, a decrease of the height of the 2nd wave of MG_2 and the formation of a 3rd wave is observed; the 3rd wave grows in the shape of a

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KOPANICA, M.; DOLEZAL, J.

SCIENCE

Periodical COLLECTION OF CZECHOSLOVAK CHEMICAL COMMUNICATIONS. SBORNIK CHEKHOVATSKIKH
KHIMICHESKIKH RABOT. Vol. 23, no. 1, Jan. 1958.

KOPANICA, M.; DOLEZAL, J. Use of amines in inorganic polarography. IV. Polarographic
behavior of zinc, cobalt, and nickel in glycine solutions. In German. p. 50.

Monthly List of East European Accessions (EEAI) LC, Vol. 8, no. 3, March, 1959. Uncl.

KOPANICA, M.

✓ Chelometric titration of manganese in ferromanganese.
R. Ptibil and M. Kopanica (Czechoslovak Acad. Sci., Prague). Chemický ročník 46, 85-9 (1959). — Mn in ferro-manganese (I) is detd. by an EDTA titration by dissolving about 0.25 g. of the alloy in concd. HNO₃ and then concd. HCl; evapn. to a small vol.; further addn. of the acids and a repetition of the evapn.; diln. to 250 ml. with H₂O. A 25- or 50-ml. aliquot of the soln., without bothering to remove ptd. silica, is placed in a 300-ml. conical flask and 5 ml. of 10% aq. hydroxylamine-HCl soln. is added. Ten ml. of 20% triethanolamine soln. and 20-25 ml. of concd. NH₃ are added.

The mixt. is dild. to 150 ml. Indicator powder, consisting of a mixt. of 1 part of thymolphthalein with 100 parts of KNO₃, is added to obtain a clear blue color. The soln. is titrated with standard 0.05M EDTA to a colorless or slight pink color. The procedure is only applicable to I contg. 40% Mn. Cu and Zn do not interfere in trace amts.; higher amts. can be masked by the addn. of 50 mg. of KCN. Cu can be detd. photometrically in an aliquot of the final soln. by the use of Na diethyldithiocarbamate by the procedure of Sedivec and Vasak (C.A. 44, 10574e). Bernard M. Blank

KOPANICA, M.; PRIBIL, R.

Application of complexones in chemical analysis. LIV. Polarographic determination of cadmium in metallic indium. Coll Cz chem 26 no.2:
398-402 F '61.
(EEAI 10:9)

1. Laboratory of Analytical Chemistry, Institute of Geochemistry and
Raw Material Research, Czechoslovak Academy of Science, Prague.

(Complexons) (Cadmium) (Indium)
(Polarograph and polarography)

KOPANICA, M.; VYDRA, F.

Indirect amperometric cobalt determination. Coll Qz Chem 28 no.1:
262-264 Ja '63

1. Polarographisches Institut, Tschechoslowakische Akademie der
Wissenschaften, Prag.

CONRADI, G.; KOPANICA, M.

Polarographic examination of the complex-forming properties
of the triethylenetetramine-N,N,N',N'',N''', N'''-hexaacetic
acid. Coll Cz Chem 28 no.6:1600-1603 Je '63.

1. Analytisches Laboratorium, Polarographisches Institut,
Tschechoslowakische Akademie der Wissenschaften, Prag.

KOPANICA, Miloslav

Displacement reactions of complex compounds and their use in
polarographic analysis. Chem listy 58 no. 2:163-176 F '64.

1. Laborator analyticky chemie, Polarograficky ustav, Ceskoslo-
slovenska akademie ved, Praha.

KOPANICA, Miloslav, RNDr. CSc.; CONRADI, Gunter, dipl. chem.

Triethylenetetramine N, N, N', N'', N'''-hexaacetic acid and
its use in polarographic analysis. Rudy 12 no.6:202-203 Je '64.

1. Analytic Laboratory of the Institute of Polarography,
Czechoslovak Academy of Sciences (for Kopanica). 2. Institute of
Inorganic Chemistry, Karl Marx University, Leipzig, German
Democratic Republic (for Conradi).

CONRADI, G.; KOPANICA, M.

Effect of surface-active substances on the polarographic behavior
of triethylene-tetramine-N,N,N',N'',N'',N'''-hexaacetic acid complexes.
Coll Cz chem 29 no.8:1952-1956 Ag '64.

1. Polarographisches Institut, Tschechoslowakische Akademie der
Wissenschaften, Prague.

KOPANITSA, M. [Kopanica, M.]; KONRADI, G. [Conradi, G.]; PRSHIEL, R.
[Pribil, R.]

Polarographic determination of impurities in indium concentrates.
Zav. lab. 30 no.10;1181-1183 '64. (MIRA 18:4)

1. Polyarograficheskiy institut AN Chekhoslovatskoy Sotsialisicheskoy
Respubliki, Praga.

L 52760-65 EMT(1)/ENG(v)/FCC/EGC(t) Pe-5/Pi-4 CIA/GS

ACCESSION NR: AT5011164

UR/0000/64/000/000/0108/01f3

AUTHOR: Ivanov, A. P.; Kopanik, Ye. K.; Prishivalko, A. P.; Predko, K. G.

TITLE: Investigation of the indicatrix of scattering of light by large absorbing particles of irregular form

SOURCE: Mezhdunarodnoye soveshchaniye po aktinometrii i optike atmosfery. 5th, Akhir sverstva i optika atmosfery. Vsesoyuznyy nauchno-tekhnicheskyy zhurnal. Trudy soveshchaniya. Moscow, Izd-vo Nauka, 1964, 195-196.

TOPIC TAGS: atmospheric optics, light scattering, atmospheric absorption, atmospheric physics, aerosol, particle shape, scattering indicatrix

ABSTRACT: This paper is a continuation of investigations begun by Ye. O. Fedorova (Zh. GOF, 1957, 25, No. 151). It presents an experimental study of the indicatrix of scattering of light by individual, large, slightly absorbing particles of irregular form. The authors have proposed a method of determining the indicatrix of scattering of light by particles of irregular form. The method is based on the comparison of the results of the paper discussed above with the results of the experiments on the scattering of light by spherical, slightly absorbing particles of regular form. The authors express their thanks to Ye. O. Fedorova for use of the apparatus used in the investigation, advice and discussion of the results. Orig. art. has: 8 formulas and 3 figures.

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scattering by particles of regular and irregular form is essentially different. For this reason, it is impossible to model particles of an arbitrary form by spherical centers of scattering of some effective size, as frequently is done. "In conclusion, the authors express deep appreciation to Ye. O. Fedorova for use of the apparatus used in the investigation, advice and discussion of the results." Orig. art. has: 8 formulas and 3 figures.

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000824510002-9

Card 2/3

ACCESSION NR: AT5011164

ASSOCIATION: Institut fiziki AN BSSR, Minsk (Physics Institute, AN BSSR)

SUBMITTED: 25Nov64

ENCL: 00

SUB CODE: ES, OP

NO REF SOV: 003

OTHER: 607

Card

3/3

L 29679-66 EWT(m)/EWP(e) WH
ACC NR: AP6012852

SOURCE CODE: UR/0358/66/004/004/0306/0312

AUTHOR: Prishivalko, A. P.; Burakov, V. S.; Zhukovskiy, V. V.; Kopenik, Ye. K.

ORG: none

TITLE: Investigation of losses in a resonator with non-parallel bases

SOURCE: Zhurnal prikladnoy spektroskopii, v. 4, no. 4, 1966, 306-312

TOPIC TAGS: neodymium glass, solid state laser, laser cavity, laser optics, laser r and d, laser energy

ABSTRACT: In view of the fact that the radiation-power losses of a laser depend greatly on the adjustment of the resonator mirrors, the authors analyze in detail, both theoretically and experimentally, the dependence of the laser parameters on the angle between the mirrors. The theoretical analysis is made in the geometric-optics approximation and is based on a calculation of laser resonator losses published by B. I. Stepanov and V. P. Gribovskiy (UFN v. 82, 201, 1964). A formula is derived for the loss coefficient of the mode with the largest number of passages of the beam, and is used to calculate the loss coefficient of a neodymium-glass laser. The results of the calculation were checked experimentally for three samples of neodymium-glass with different diameters and different surface finishes,

UDC: 621.375.9

Card 1/2

APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R000824510002-

L 29679-66

ACC NR: AP6012852

using a measurement procedure described by the authors earlier (ZhPS v. 2, 504, 1965). This method is based on determining the internal losses of the laser from the characteristic rise time of the lasing action. Plots are presented of the relative loss coefficient and the relative emission power against the misalignment angle of the mirrors. The calculations show that the losses increase rapidly with increasing angle, and that the minimum angle at which the loss can be neglected is ~15.5°, which is lower than that given in the published specification. The discrepancy is attributed to the presence of systematic inhomogeneities in the rods, causing deflection of the beams to one side. The authors thank Academician AN BSSR B. I. Stepanov for interest in the work and a discussion of the results. Orig. art. has: 4 figures and 10 formulas.

SUB CODE: 20/ SUBM DATE: 06Sep65/ ORIG REF: 012/ OTH REF: 001

Card 2/2 10

PRISHIVAL'KO, A.P. [Pryshival'ka, A.P.]; KOPANIK, Ye.K. [Kapanik, Ye.K.]

Calculating the luminescence in a resonator with outer mirrors
in the case of disadjustment. Vestsi AN BSSR. Ser.fiz.-mat.
nev. no.2165-70 '65. (MIFB 1981)

PRISHIVALKO, A.P.; KOPANIK, Ye.K.

Effect of the adjustment of resonator mirrors on the radiation
parameters. Dokl. AN BSSR 9 no.10:654-658 O '65.

(MIRA 18:12)

1. Institut fiziki AN BSSR. Submitted January 30, 1965.

KOPANITSA, A.

Organomineral fertilizer mixtures increase the yield of early
potatoes. Nauka i pered. op. v sel'khoz. 8 no.4:23 Ap '58.
(MIRA 11:5)

1.Zaveduyushchiy otdelen agrotekhniki Kiyskoy ovoshchekartofel'noy
opytnoy stantsii.

(Potatoes)
(Fertilizers and manures)

KOPANITSA, A.M.

Fertilizers for potatoes in dark-gray podzolized soils. Agro-
biologiya no.1&41-45 Ja-F '64 (MIRA 17:8)

1. Kiyevskaya ovoshche-kartofel'naya opytnaya stantsiya.

KOPANITSA, A.M.

Effect of organomineral fertilizers on vegetable and potato yields.
Agrobiologiya no.1:99-102 Ja-F '60. (MIRA 13:5)

1. Kiyevskaya ovoshche-kartofel'naya stantsiya.
(Vegetables--Fertilizers and manures)
(Potatoes--Fertilizers and manures)

• RDP86-00513R000824510002-9
• EXP(m)/EXP(q)/EXP(b) IJT(c)/AEWL/RAEM(+)/SSD III

• Author(s)

• Date: 03/13/2001/1153

• V. A. Kostylev, N. N. Novakadi, L. I. Pravdil, V.

• Determination of indium, zinc, copper, tin, lead, cadmium, tellurium, thallium, impurity, polarographic analysis, extractant extraction/TTNA

• Moscow Laboratoriya, v. 30, no. 10, 1964, Leningrad

D

• Indium, impurity, polarographic analysis, extractant extraction/TTNA

ABSTRACT: The authors developed a method of finding copper, lead, cadmium, tellurium, indium, zinc, magnesium, tin, thallium, separation of indium from zinc, manganese, iron, cobalt, nickel, and tin proposed to supersede and simplify earlier polarographic means of determining Cu, Pb, Cd and Tl (V. A. Kostyleva and Z. I. Fisits, in issue of this journal v. 29, no. 10, 1963). The reagent TTNA (tri-n-butylamine - N, N, N', N'-tetrabutylammonium iodide) was used and with citric acid in a titration as the principal extractive agent. Metals are utilized by different means and groupings of extractants can be selected, depending upon composition. Several tests were run to verify the accuracy of using the method. Known quantities of indium, zinc, iron, cobalt, magnesium, manganese, copper, lead, cadmium and thallium were mixed together, and, after

At the same place, the extracted quantities were compared with the previous ones. The analysis proved quite accurate and required less time than before. A table of results and a detailed description of the analytical method. Orig. art. has: 1 formula and 1 table.

1. Polyamograficheskiy institut, Akademii nauk ChSSR Praga (Polarograph)
2. Academy of Sciences, Czechoslovakian SSR)

4. 36

ENCL: 00

5. NM

NO RRF Sov: 003

OTHER: 003

KOPANITSA, N.I., agronom.

Highly oleaginous variety of sunflower in the raw materials zone
of the Poltava Oil and Fat Combine. Masl.-shir.prom. 19 no.5:6-7
'54. (MIRA 7:9)

1. Poltavskiy masloshirkombinat.
(Poltava Province--Sunflowers) (Sunflowers--Poltava Province)

MIKHAI'CHENKO, V.; KOPANITSA, Ya.; MOLCHANOV, V.

Striving for technological progress. Mast.ugl. 8 no.12:13-15
(MIRA 13:4)
D '59.

1. Predsedatel' Stalinskogo gerkoma profsoyuza rabochikh ugol'-
noy promyshlennosti (for Mikhal'chenko). 2. Predsedatel' Tul'-
skogo obkoma profsoyuza rabochikh ugol'noy promyshlennosti (for
Kopanitsa). 3. Zaveduyushchiy otdelom truda i zarabotnoy platy
Tul'skogo obkoma profsoyuza rabochikh ugol'noy promyshlennosti
(for Molchanov).
(Coal mines and mining) (Trade unions)

"APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R000824510002-9

BOCHAROV, P.; DOBRA, A.; ZAYTSEV, N.; KALUTSKIKH, N.; KOMOGORTSEV, N.;
KOPANITSA, Ya.; MIKHAYLENKO, I.; PLIKHIN, P.; PODZHAROV, P.;
RUZOV, N.; SEMENOV, N.; STAKHANOV, A.; USKOV, A.

Foma Evgen'evich Tiurin; an obituary. Mast. ugl. 7 no.11:32 N '58.
(MIRA 11:12)
(Tiurin, Foma Evgen'evich, 1898-1958)

APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R000824510002-9"

KOPANITSA, Ya.

Unforgettable encounters. Sov.shakht. 11 no.1:44 Ja '62.
(MIRA 14:12)

1. Predsedatel' Tul'skogo oblastnogo komiteta profsoyuza.
(Russia--Relation (General) with Hungary)
(Hungary--Relation (General) with Russia)

KOPANJEC, M.

Examples of calculation of surface ventilators for a hard coal colliery with computations for a:(a loss of air through protecting walls(of thickness less than 10m.) b) loss of depression because of sudden turns and changes in the cross sections of galleries and loss of depression because of formation of whirlwinds originating in passing of air masses through obstacles in pits. p. 11 65. TEHNKA (Savaz inženjera i tehnika Jugoslavije) Beograd. Vol. 11, no. 8, 1956/

SOURCE: East European Accession List (EEAL),
Library of Congress, Vol. 5, no. 11, Nov. 1956

KOPANOV, Mikhail Aleksyevich; KASHIRIN, Vasiliy Filoagovich;
VERZHbinskaya, I.I., inzh., red.; FHEGER, D.P., tekhn.red.

[Finish polishing using wheels with graphite filler] Chistovoe
shlifovanie krugami s grafitovym napolnitel'em. Leningrad, 1956.
6 p. (Leningradskii dom nauchno-tekhnicheskoi propagandy.
Informatsionno-tekhnicheskii listok, no.40: Mekhanicheskaiia
obrabotka metallov) (MIRA 10:12)
(Grinding and polishing)

KOPANOV, M.A.

BELOV, V.G., inzhener; KOPANOV, M.A., tekhnik.

How to check working roll surfaces on cold rolling mills. Metallurg
no.6:30-31 Je '56. (MIRA 9:9)

1.Rukoveditel' prekatney gruppy TzZL (for Belov).2.Machal'mik uchastka
shlifovki valkov (for Kepanov).3.Leningradskiy staleprekatnyy i preve-
lechno-kanatnyy zavod imeni Meleteva.
(Bells (Iron mills))

"APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R000824510002-9

KOMENDANTOV, G.L.; KOPANOV, V.I.

Motion sickness as a problem of space medicine. Probl.kosm.
biol. 2:80-92 '62. (MIRA 16:4)
(MOTION SICKNESS) (SPACE MEDICINE)

APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R000824510002-9"

KOPANS, G.I.

Installing an auxiliary telpher on the K2K-20/3 t. grab gantry
crane. Stroi. ind., stroi. mash. i mekh. no.1:62-66 '62.

(MIRA 17:9)

1. Moskovskiy zavod zhelezobetonnykh izdeliy i konstruktsiy Moskovskogo
tresta po stroitel'stvu i montazhu teplovых elektrostantsiy.

"APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R000824510002-9

Kopanska
KOPANSKA, W.

God made no use of the opportunity; a book review.

p. 18 (Zolnierz Polski) No. 26, Nove. 1957, Warszawa, Poland

SO: MONTHLY INDEX OF EAST EUROPEAN ACCESSIONS (EEAI) LC, VOL. 7, NO. 1, JAN. 1958

APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R000824510002-9"

ACCESSION NR: AR3000205

S/0081/63/000/006/0136/0136

SOURCE: RZh. Khimiya, Abs. 6G139

AUTHOR: Lyalikov, Yu. S.; Kopanskaya, L. S.

TITLE: Analysis of microsamples of indium-antimony-tellurium base semiconductor alloys

CITED SOURCE: Izv. AN MoldSSR, no. 12(90), 1961, 47-55

TOPIC TAGS: microsamples, indium-antimony-tellurium, semiconductor alloys

TRANSLATION: A microanalytical procedure has been developed for binary and ternary In-Sb-Te semiconductor alloys (sample of less than or equal to 30 mg). In ³⁺ determined complexometrically, Sb ³⁺ by bromide-bromate titration, Te ⁴⁺ iodometrically. Sample of about 30 mg is fused in microcrucible with 150 - 300 mg K-bisulfate and the melt is leached by heating with 3 ml mixed acid (25 ml sulfuric acid + 45 ml HCl + 180 ml water). The resultant solution is transferred with the use

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ACCESSION NR: AR3000205

added 3 ml HCl (1:1), excess of KI, diluted with water to 20 ml and titrated with solution of Na-thiosulfate. A blank titration is carried out concurrently. Error of determination of Sb less than 4.7%; of Te, less than 6.1%. The method is suitable for analysis of films of semiconductor materials (to remove the film from the glass it is treated with molten K-bisulfate and weight of sample is determined from decrease in weight of glass), and of microsamples obtained by drilling from different phases of semiconductor materials. N. Chudinova

DATE ACQ: 16May63 ENCL: 00

SUB CODE: 00

Card 3/3

S/137/62/000/012/085/085
A006/A101

AUTHORS: Lyalikov, Yu. S., Kopanskaya, L. S., Safrokova, N. N.

TITLE: Chemical and physico-chemical methods for determining indium,
antimony, and tellurium in semiconductor alloys

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 12, 1962, 19
abstract 12K118 (In collection: "Fizika", Leningrad, 1962,
26 - 30)

TEXT: The authors developed macro- and microchemical methods of determining In, Sb and Te, without separating same, in semiconductor alloys. The mean error does not exceed $\pm 0.5\%$. For In determination, 5 ml 10%-solution of Seignette's salt, 10 - 15 ml buffer mixture (pH 8 - 10) and eriochrome black tracer, are added to the solution under investigation. The mixture is heated to the boiling point and titrated with trilon B until it turns blue. To determine Sb, 5 - 10 ml HCl (1:4) and one drop of methyl red tracer are added to the aliquot portion of the solution, which is titrated in 0.1 n. KBrO₃ solution until it turns yellow. To determine Te, 1 - 2 g KI is added to the aliquot portion of the

Card 1/2

"APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R000824510002-9

KOPANSKAYA, I.S.; LYALIKOV, Yu.S.

Photocolorimetric analysis of the system indium - antimony - tellurium.
Izv. AN Mold. SSR no.10:31-37 '62. (MIRA 17:12)

APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R000824510002-9"

L 32208-65 EWT(1)/EWT(m)/T/EWP(t)/EEC(b)-2/EWP(b) PI-4 LIP(c) REN/CG/JD/US

A NR: AT6/05-14

2 APRIL 1965

Lebedeva, L. S.

alloys based on indium-antimony-tellurium

SOURCE: Nauchnaya konferentsiya molodyykh uchenykh Moldavii, 3d. Trudy, no. 1:
Naukovo-tehnicheskiye nauki (Natural and technical sciences). Kishinev,
Gruzino-Moldovenskaya SSR, Kartvi Molochnyayka, 1964. 25

method: polarography, pulse voltammetry, atomic absorption, infrared analysis,
semiconductor alloy, antimony alloy, tellurium alloy, quantitative analysis

RESULTS: The polarographic method for the determination of In, Sb, and Te
gives the best results. The error of a milligram sample is 0.5% at a weight of 10 mg.
The weight of InSbTe alloy samples is 10 mg. The errors in the
determination of In, Sb, and Te are 0.5% at a weight of 10 mg. The atomic absorption method gives the best results for the determination of In, Sb, and Te. The error of a milligram sample is 0.5% at a weight of 10 mg. The infrared analysis method gives the best results for the determination of In, Sb, and Te. The error of a milligram sample is 0.5% at a weight of 10 mg. The cathode (period = 2 sec.), and a solid phase mercury anode, in a medium of 10 ml. The results agreed within 0.7% with the known composition of the samples.

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"APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R000824510002-9

L 32208-65

ACCESSION NR: AT5005414

ASSOCIATION: None

SPN: AT5005414

ENCL: 00

SUB CODE: OP, 88

TYPE: PRC

OTHER: 00

APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R000824510002-9"

LYALIKOV, Yu.S.; KOPANSKAYA, L.S.

Rapid method of determining indium, antimony, and tellurium
in semiconductor alloys by means of an alternating current
polarograph. Ukr. khim. zhur. 30 no.1:91-95 '64.
(MIRA 17:6)

1. Institut khimii AN Moldavskoy SSR.

L 24653-65 EPR/EWT(m)/EWP(b)/EWP(t) Pg-4 IJP(c) RDW/JD
ACCESSION NR: AP5004704 5/0030/64/000/009/0075/0078 26
27

AUTHOR: Pyslikov, Yu. S. (Corresponding member AN MolSSR); Radutsan, S. I. ^b
(Candidate of physico-mathematical sciences); Kopanskaya, L. S.; Molodyan, I. P.

TITLE: Synthesis and chemical analysis of complex phase semiconductors

SOURCE: AN SSSR. Vestnik, no. 9, 1964; 75-76

TOPIC TAGS: indium, antimony, tellurium, selenium, aluminum, semiconductivity,
chemical compound, analytic chemistry

Abstract: The synthesis of complex semiconductor systems, and their chemical and phase composition, have been investigated at the Institute of Physics and Mathematics and the Institute of Chemistry of the Moldavian Academy of Sciences. The results of investigations of systems of the A^{III}B^VC^{VI} type are reported. In the indium-antimony-tellurium system, a new phase, In_xSbTe, with a NaCl-type lattice was detected and separated by the zone-levelling method. A large region of complete solid solubility, with a zinc blende-type structure, was also detected in (InSb)_x-(InTe)_{1-x} compositions for x < 0.85. The existence of monovalent indium atoms was assumed in both structural

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ACCESSION NR: AF5004704

types. The formation of vacancies in either cationic or anionic sublattices in solid solutions is the most likely mechanism of crystallization.

Large solid-solubility regions near the $A^{III}B^V$ component were also observed in the indium-arsenic-tellurium system (in the 0-50 mol % InTe range), and in the indium-arsenic-selenium and aluminum-antimony-tellurium systems. Recently, the possibility of dissolving 10 at% tellurium in InAs was discovered. The mechanism of solid dissolution of sixth-group elements in $A^{III}B^V$ compounds is explained. An attempt to synthesize Ga_4SbTe_3 , In_4AsTe_3 , or In_4SbSe , produced only complex mixtures of binary compounds and elements. Formation of large complete solid-solubility regions by heterovalent substitution is also considered possible in other ternary or more complex systems, near compounds of the $A^{II}B^{VI}$ type and in ternary diamond-type structures.

Chemical, microchemical, and physicochemical analytical methods were developed for determination of components in the indium-antimony-tellurium and gallium-phosphorus-sulfur systems. The pulse polarographic method is considered especially convenient for quantitative chemical analysis of thin semiconductor films deposited on a glass substrate by the Vekshinski method.

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ACCESSION NR: AP5004704

A microbering machine with a PMT-3 microhardness gauge, and the anodic-dissolution method, were used for mechanical and electrochemical phase separation to determine the chemical composition of each phase in the indium-antimony-tellurium and In-InTe systems, respectively. Phase separation in the Ga-GaP and $\text{Ga}_{2/3}\text{S}_{1/3}$ -GaP systems was achieved by selective dissolution in hydrochloric acid.

ASSOCIATION: Institut fiziki i matematiki Akademii nauk Moldavskoy SSR (Institute of Physics and Mathematics, Academy of Sciences, MolSSR); Institut khimii Akademii nauk Moldavskoy SSR (Institute of Chemistry, Academy of Sciences, MolSSR)

SUBMITTED: OO ENCL: OO SUE CODE: SS, GG

NO REF SOV: 000 OTHER: 000 FSB v. I, no. 1

Card 3/3

L 27911-65 EWP(m)/EWP(t)/EWP(b) IJP(c) JD
ACCESSION NR: AP4011978 S/0073/64/030/001/0091/0095

23
22
B

AUTHORS: Lyalikov, Yu. S.; Kopanskaya, L. S.

TITLE: A fast method for determining In, Sb⁷⁵ and Te in semiconductor alloys on an alternating current polarograph

SOURCE: Ukrainskiy khimicheskiy zhurnal, v. 30, no. 1, 1964, 91-95

TOPIC TAGS: In Sb Te system, pulse polarograph, a c polarograph, semiconductor alloy, thin film, indium, antimony, tellurium

ABSTRACT: A pulse polarographic method is developed for the analytical control of the synthesis of new semiconductors with given characteristics. Indium, antimony and tellurium can be determined in quantities in the order of 10⁻⁶ mole/liter of 1N HCl electrolyte in In-Sb thin layers or in InSb-InTe semiconductor alloys. Preliminary separation of tellurium from indium is required only if the Te/In ratio is smaller than 1/100. This method has a high sensitivity and resolution power as well as some other advantages in comparison to other methods for defining the system In-Sb-Te. An a c polarograph of type KAP-225u. was used in this study. All three elements can be polarographed in one solution without the necessity

Card 1/2

L 27911-65

ACCESSION NR: AP4011978

of first removing the oxygen. Orig. art. has: 3 figures and 4 tables

ASSOCIATION: Institut khimii AN MSSR (Institute of Chemistry, AN
MSSR)

SUBMITTED: 07 Jan 63

ENCL: 00

SUB CODE: SS, OP

NR REF SOV: 013

OTHER: 000

2/2

Card

L 6695-65 EWT(m)/EWP(q)/EWP(b) RAEM(t) RDW/JD/MLK
ACCESSION NR: AT4044567

S/0000/64/000/000/0134/0142

48
47

AUTHOR: Lyalkov, Yu. S.; Kepanskaya, L. S.; Molodyan, I. P.; Sedentzaan, S. I.

(Candidate of physico mathematical sciences)

TITLE: Microchemical phase analysis of some semiconductor alloys of the system

In - Sb - Te

SOURCE: AN MoldSSR. Institut fiziki i matematiki. Issledovaniya po poluprovodnikam; novyye poluprovodnikovyye materialy (Semiconductor research; new semiconductor materials). Kishinev, Gos. Izd-vo Kartya Moldovenyasko, 1964, 134-142

TOPIC TAGS: phase analysis, microchemical phase analysis, semiconductor alloy, In - Sb - Te alloy, potentiometric titration, x-ray structural analysis, microhardness, microstructure

ABSTRACT: Microanalysis of the phase composition of In-Sb-Te alloys was carried out by potentiometric titration methods; antimony, tellurium, and indium were determined using methods previously described. Micro-samples of the different phases of this system were obtained with a drilling attachment to a microhardness meter base, using drills 0.1 mm in diameter. The phase samples obtained in this manner were not contaminated by other phases provided the drilling was not deeper than the phase diameter of 0.2 mm. A comparison of the single phase alloy In_4SbTe_3

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I 6695-65

ACCESSION NR: AT4044567

with the ternary compound In_4SbTe_3 showed that the error of element determination did not exceed 2% (abs.). Molar calculation by chemical analysis confirmed the alloy composition. The three-phase alloy $3\text{In}_3\text{Sb}_3 \cdot \text{In}_2\text{Te}_3$ was then investigated by this method. Only the gray and light gray phases could be analyzed microchemically. Results indicated that the gray phase contained all three elements and represented the solid solution of In-Sb, while the light gray phase revealed only indium and tellurium. It was shown that this alloy did not contain its original compounds InSb and In_2Te_3 . Ingots obtained after zone leveling of the alloy In_3Sb_3 . In_2Te_3 were also analyzed. The beginning, middle and end of the ingot were checked for phases, microhardness, lattice type and lattice constant. Microchemical analysis showed that the ratio of the elements in the beginning of the ingot was close to that in the ternary compound In_4SbTe_3 . Analysis of the middle showed a decrease in indium and an increase in antimony. The final section consisted of phases corresponding to InSb and also In_4SbTe_3 . These data agree with micro and x-ray structural analyses. Orig. art. has: 5 figures and 3 tables.

ASSOCIATION: Institut fizikal'no-matematicheskoi AN MoldSSR (Institute of Physics and Mathematics, AN MoldSSR)

SUBMITTED: 13Dec63

ENCL: 00

SUB CODE: MM

Card:

2/2 NO REF Sov: 008

OTHER: 000

L 32196-66 ENT(m)/ETC(f)/T/EWP(t)/ETI IJP(c) RDW/JD
ACC NR: AP6012909 SOURCE CODE: UR/0075/66/021/004/0516/0517

AUTHOR: Kopanskaya, L. S.

ORG: none

TITLE: Conference on analytical chemistry of semiconductors

SOURCE: Zhurnal analiticheskoy khimii, v. 21, no. 4, 1966, 516-517

TOPIC TAGS: chemical conference, analytic chemistry, semiconducting material, trace analysis, polarographic analysis, spectrophotometric analysis, spectrographic analysis, spectroscopy

ABSTRACT: A Conference on Analytical Chemistry of Semiconductors was held 11-15 November 1965 at the Academy of Sciences MoldSSR in Kishinev. About 200

participants discussed the problems of sensitivity of newly developed analytical methods in view of purity requirements (10^{-6} - 10^{-8} % impurity) for semiconductor materials, application of the analytical methods for production control of semiconductor materials, preparation of pure reagents with controlled impurity content, chemical analysis of complex semiconductor systems, etc.

Basic trends of the analytical chemistry of multicomponent systems were outlined by Yu. S. Lyalikov, N. A. Goryunova, S. I. Radutsan, and L. S.

Card 1/4

L 52196-66

ACC NR: AP6012909

Kopanskaya (AS MoldSSR) and Leningrad Physicotechnical Institute, AS USSR)
who emphasized the importance of determining stoichiometric deviations of
the order of $10^{-3}\%$.

23

M. S. Chupakhin, and Yu. V. Yakovlov, both from the Moscow Institute
of Geochemistry and Analytical Chemistry, AS USSR, reported on determination
of oxygen and nitrogen in high purity hydrogen and argon, and on activation
analysis of semiconductors, respectively.

Most of the papers dealt with various polarographic techniques.

A. G. Stromberg and co-workers (Tomsk Polytechnic Institute) presented
a series of papers on amalgam polarography with accumulation, which pre-
sently makes possible determination of 10^{-7} — $10^{-8}\%$ impurity, and offers
distinct possibility of increasing sensitivity to 10^{-10} — $10^{-11}\%$.

B. Ya. Kaplan, G. N. Revyakina, Kh. S. Rezakova, and O. A. Shirayeva
(State Scientific Research and Planning Institute of the Rare Metals In-
dustry) used pulse polarographic technique to increase sensitivity of
tellurium determination in gallium phosphide.

I. A. Tserkovnitskaya and V. N. Yerimakhov (Leningrad State University)
used oscillographic polarography in different base electrolytes to determine
simultaneously selenium and germanium.

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L 32196-66

ACC NR: AP6012909

A. M. Surmiy, A. M. Arishkevich, and Yu. I. Usatenko (Dnepropetrovsk Institute of Chemical Technology) indicated the possibility of amperometric determination of tellurium and antimony, or selenium and antimony in various semiconductor materials. 21

25

A series of papers was presented on [spectro] photometric determination of impurities in high purity elements or $A_{III}B_V$ and $A_{II}B_{IV}$ [sic] compound semiconductors. In this series, N. B. Lebed, R. P. Pantaler, and L. N. Semenova (All-Union Scientific Research Institute of Single Crystals) gave a method of determination of different selenium forms in cadmium selenide.

L. B. Kristaleva, N. A. Shor, and P. V. Kristalev (Perm' Polytechnic Institute) reported the determination of arsenic as a molybdenum thiocyanate complex in red phosphorus. V. G. Goryushkina and Ye. Ya. Birynkova (State Scientific Research and Planning Institute of the Rare Metals Industry) presented photometric methods for indium gallium and arsenic.

In the series on spectroscopic analysis of semiconductor materials, great interest was shown in the paper by A. V. Karyakin, M. V. Akhmanova, and V. A. Kaygorodov (Institute of Geochemistry and Analytical Chemistry, AS USSR) on determination of aluminum, boron and phosphorus deposits in SiC with the help of a laser. M. A. Notkin and S. M. Solodovnik (State Scientific Research and Planning Institute of the Rare Metals Industry) showed that sensitivity of impurity determination in $A_{III}B_V$ compounds can

Card 3/4

LS

Card 4/4

KOPANSKI, F.

COUNTRY : Poland H-13
CATEGORY :
ABS. JOUR. : RZKhim., No. 21 1959, No. 75612
AUTHOR : Kopanski, F.
TITLE : No. given
TITLE : The Production of Building Materials from Fuel Wastes
ORIG. PUB. : Energetyka (Poland), 12, No 1, 1-5 (1958)
ABSTRACT : The production of local building materials (LBM) from steam-heat and electric power station fuel wastes (slag, fly ash) in Southern Poland is described. Among the LBM produced are porous and gaseous silicate and blast furnace slag concrete blocks and blast furnace slag-ash-concrete bricks, used mainly in the construction of housing units and auxiliary buildings. The mortars used in the production of LBM are burnt CaO, ground gypsum, ground blast furnace slag; Al powder is used as

CARD: 1/3

: COUNTRY : Poland 4-13
CATEGORY :
ABS. JOUR. : RZKhim., No. 21 1959, No. 75612
AUTHOR :
INST. :
TITLE :

ORIG. PUB. :
ABSTRACT : pore-[gas-] forming agent. Porous and gaseous blocks are produced from mixtures of ash, ground CaO, gypsum, Al, and water, mixed to the consistency of liquid cream, and are poured into forms; when the mass has set, it is cut into blocks of desired size and the latter are subjected to the action of saturated steam, followed by additional storage for about 1 month. Blast furnace slag-ash-concrete bricks are formed in 'carousel' presses and taken to autoclaves. Slag-concrete

CARD: 2/3

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COUNTRY	:	Poland	H-13
CATEGORY	:		
ABS. JOUR.	:	RZKhim., no. 21 1959, No.	75612
AUTHOR	:		
EDITOR	:		
TITLE	:		
ORIG. PUB.	:		
ABSTRACT	:	blocks are produced from mixtures of granulated boiler slag, ground CaO, and ground blast furnace slag of normal poured concrete consistency; the blocks are shaped by machine and kept 10-14 days in steam chambers or stored under natural conditions for 30 days. The production of type 150 slag portland cement from blast furnace slag has been organized at the rate of about 200 tons per month; in addition, up to 10,000 tons of clay cement are produced per yr. The Polish Govern-	
CARD: 3/4			

COUNTRY	:	Poland	H-13
CATEGORY	:		
AES. JOUR.	:	RZKhim., No. 21 1959, No.	75612
AUTHOR	:		
INST.	:		
TITLE	:		
ORIG. PUB.	:		
ABSTRACT	:	ment has drawn up a broad plan for the production of LBM from fuel wastes: of the total planned 1965 production of 10 billion units (brick basis), only 4 billion units will be produced in the form of bricks from clay, the remaining 6 billion units being made from wastes.	S. Glebov
CARD: 4/4			
198			

KOPANSKI, R.

Possibilities of the introduction of silkworm breeding in collective farms. p. 74.
(NOWE ROLNICTWO. Vol. 2, no. 10, Oct. 1953)

SO: Monthly List of East European Accessions, L.C., Vol. 3, No. 4, April, 1954

KOPANSKIY, Ya. M.

Dissertation defended for the degree of Candidate of Historical Sciences in the
Institute of History

"Upsurge of the Working Class Movement in Bessarabia During the Years of the
World Economic Crisis (1929-1933)."

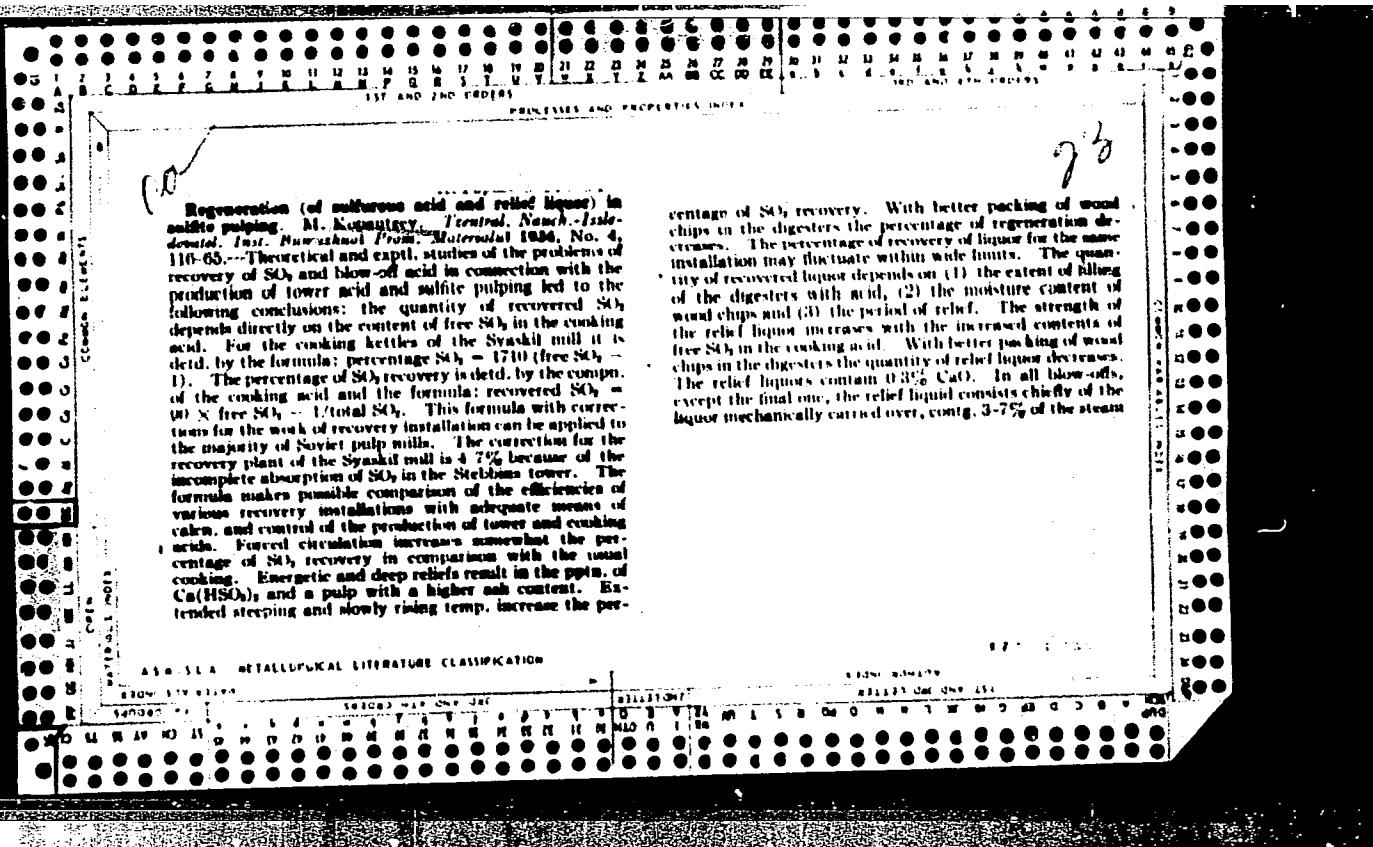
Vestnik Akad. Nauk, No. 4, 1963, pp 119-145

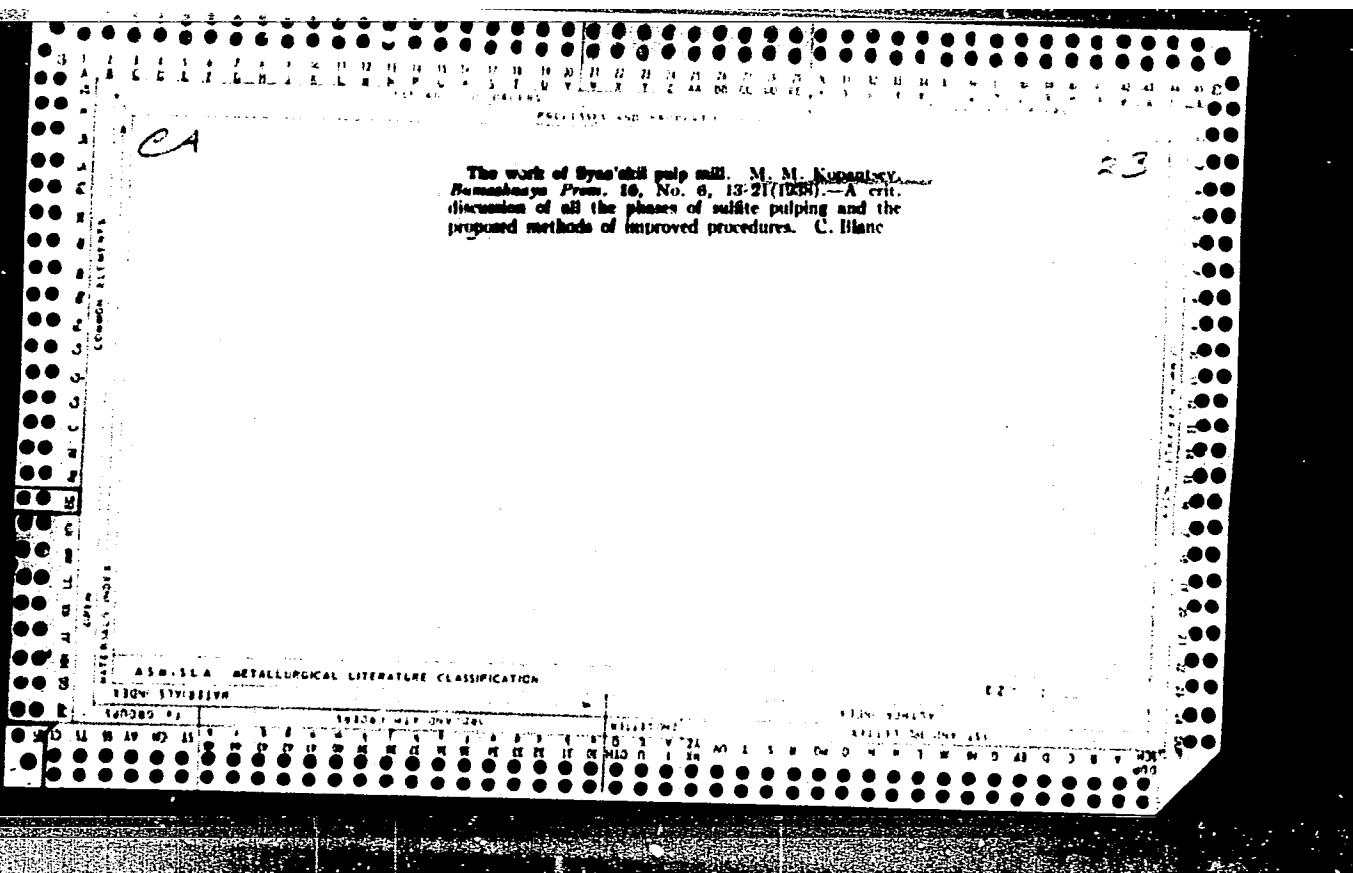
KOPANTSEV, M.N.; OVCHINNIKOV, B.A.; BABAYEV, Ye.V.; BABUSHKINA, M.D.

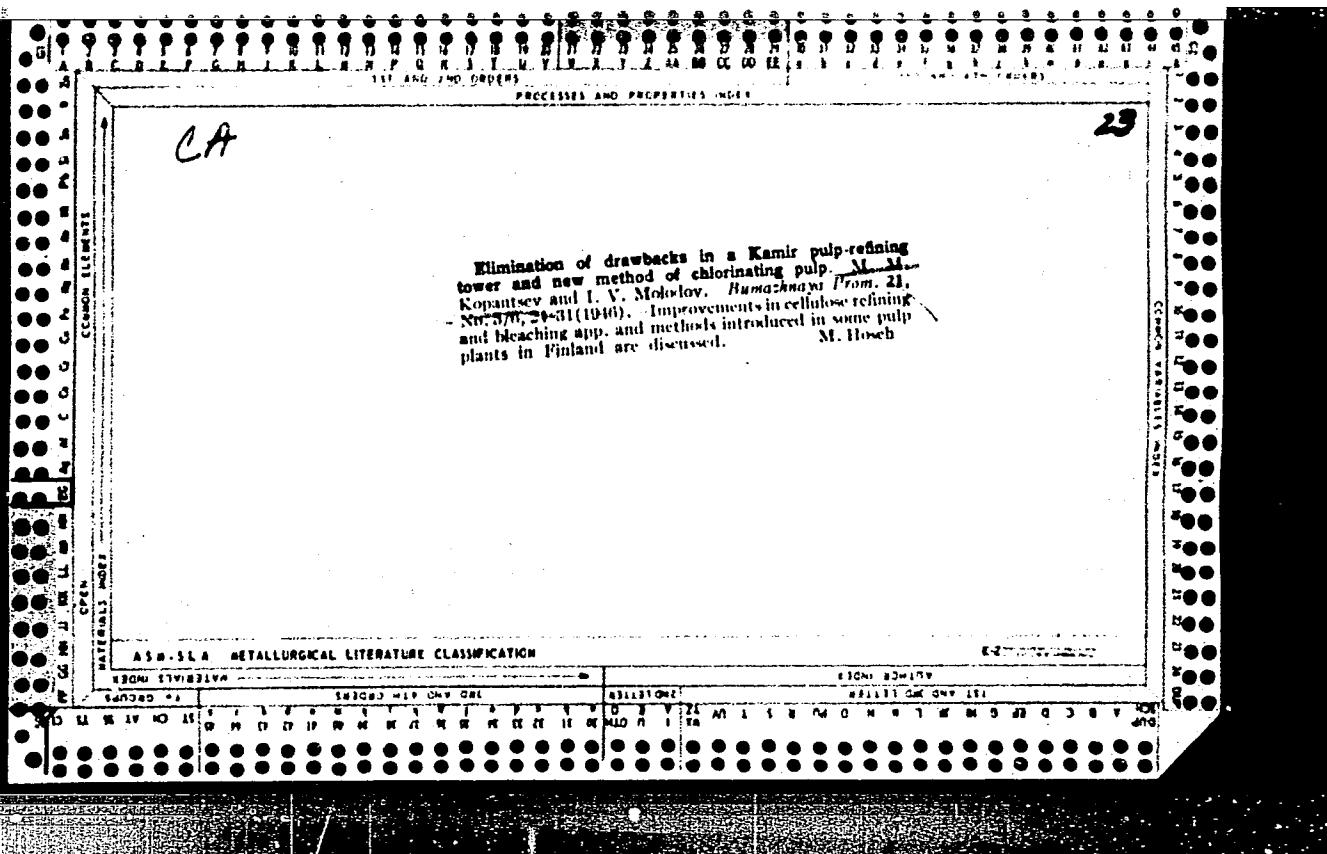
System of purification and cooling of sulfur dioxide with the
use of bubble tower equipment. Bum.prom. 34 no.2:11-15 F '59.
(MIRA 12:4)

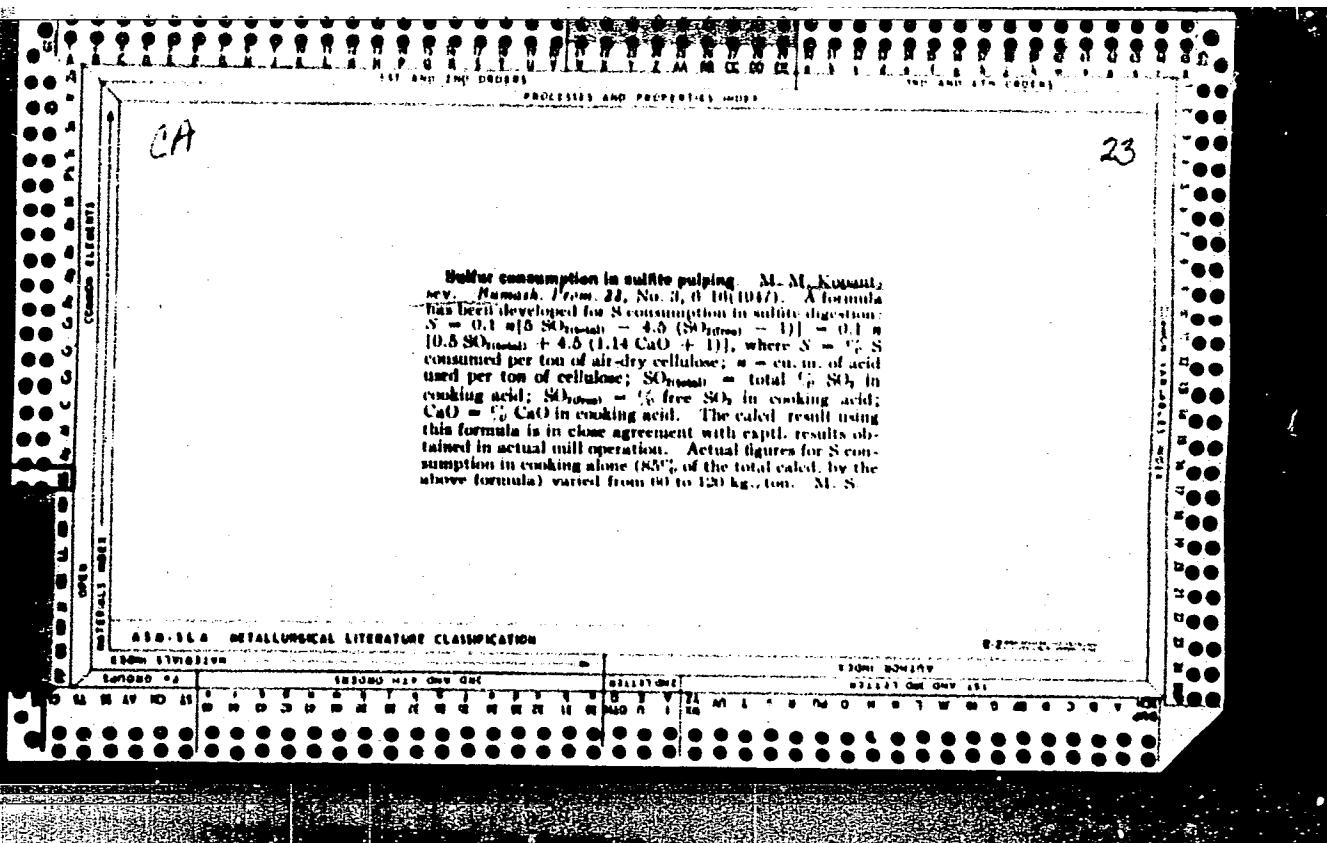
1. Upravleniye TsBP Kaliningradskogo sovnarkhoza (for Kopantsev).
2. Vtoroy Kaliningradskiy kombinat (for Ovchinnikov). 3. Moskov-
skiy filial Tsentral'nogo nauchno-issledovatel'skogo instituta
tsellyuloznay i bumazhnay promyshlennosti (for Babayev, Babush-
kina).

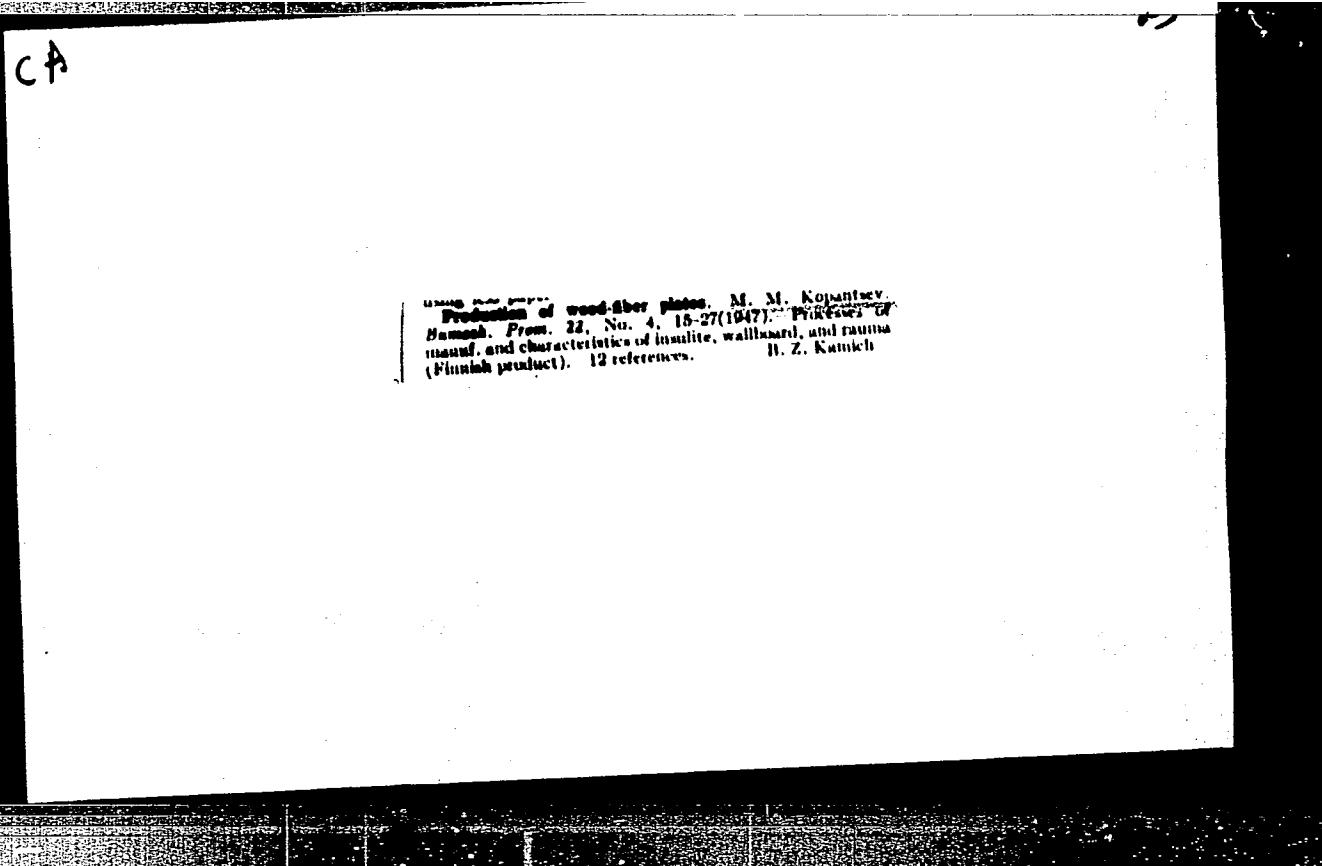
(Sulfur dioxide) (Scrubber (Chemical technology))

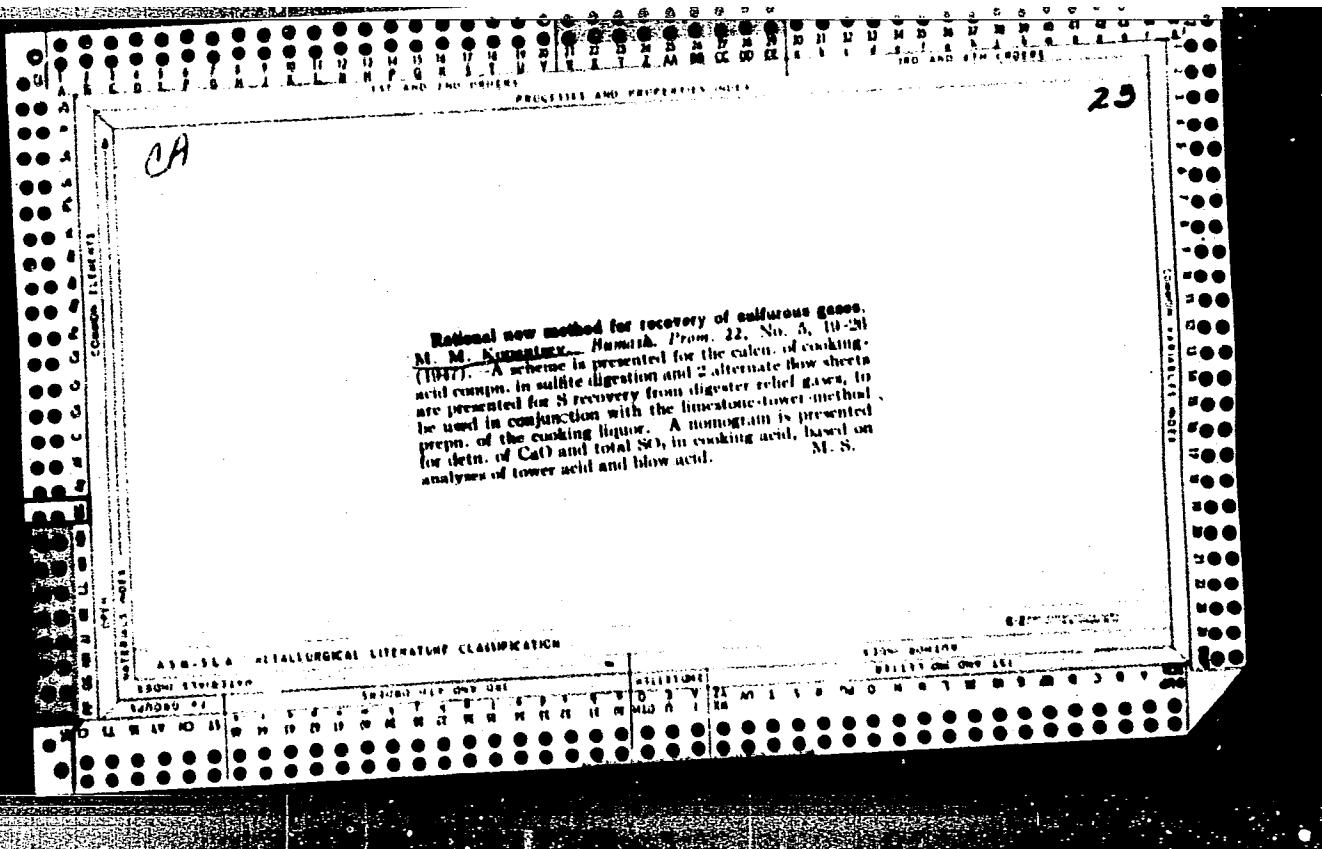












CA

23

Sulfur consumption in sulfite digestion. M. M. Kopanytchuk, *Biochem. Prepr.* 23, No. 2, 22 (1948); cf. *J. A. 42*, 4745, 6111g. Spruce chips were cooked with acid contg. 5.0% total SO₃ and 0.9% CaO (I) at chip:acid wt. ratios of 1:4, 1:5, and 1:6; acid contg. 5.0% total SO₃ and 0.6% CaO (II) at a chip:acid wt. ratio of 1:7.5, and acid contg. 11.0% total SO₃ and 0.9% CaO (III) at a chip:acid wt. ratio of 1:8. Actual S consumption ranged from 95% to 107% of S consumption calcd. by K's previously published formula for acid (II), from 74% to 77% for acid (III), and from 78% to 81% for acid (I).

Marshall Setting

ASB-31A METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000824510002-9"

CA

The application of liquid sulfur dioxide in sulfite mills.
Max. Maskegant, March, Proc. 26, No. 6, 19-24
(1931). - The use of liquid SO_2 (D) for fortifying sulfite cooking acid during the summer months is described. The transportation and storage of D, methods of introducing it at various points in the acid system, the effect of its use on the recovery system, and the results of its use on mill production are discussed. In one mill, the use of 0, 8.8, 15.1, and 18.1 kg. 1 per ton of pulp resulted in production indexes of 100, 107.8, 111.0, and 123.0, resp. In another mill, where the strength of the tower acid was 3% (0.90% CaO), and of the cooking acid 3.37% (1.0% CaO), the use of 45 kg. 1 per ton of pulp gave a cooking-acid strength of 1.3%, and the cooking time was reduced from 22 hrs. 35 min. to 14 hrs. 35 min.

John Lake Keys

1. KOPANTSEV, M. M.
2. USSR (600)
3. Wood Pulp Industry
4. Problem of the effect of running the solution from vessel to vessel during sulfate cooking on the extraction of sugars.
Bum.prom. 27 No. 6 - 1952.

9. Monthly List of Russian Accessions, Library of Congress, February, 1953. Unclassified.

1. KOPANTSEV, M. M.
2. USSR (600)
3. Wood Pulp Industry
4. Use of deep runs of the liquor from boiler to boiler in sulfite cooking of pulp.
Bum.prom.z[No. 11 - 1952.

9. Monthly List of Russian Accessions, Library of Congress, February, 1953. Unclassified.

KOPANTSEV, ENG. M. M. - NAGRODSKIY, I. A.

Paper Industry

Book which should not have been printed ("Technical and chemical control in pulp and paper production." B. P. Osanov. Reviewed by Eng. M. M. Kopantsev, I. A. Nagrodskiy),. Bum. prom. 28 no. 1, 1953

9. Monthly List of Russian Accessions, Library of Congress, May 1953. Unclassified.

KOPANTSEV, M.M.

Increasing the service life of the blades of bark-remover knives.
Bum.prom. 29 no.7:25-26 Jl '54. (MLRA 7:8)

1. Glavnyy inzhener vtorogo Kaliningradskogo tsnellyulosno-bumash-nogo kombinata.
(Wood-pulp industry)

KOPANTSEV, M.M.

Water as one of the means of regulating the process of pyrite
burning; Bum.prom.29 no.9:18-22 S '54. (MLRA 7:11)

1. Glavnnyy inzhener vtorogo Kaliningradskogo tsnellyulosno-
bumazhnogo kombinata.
(Pyrites)